

Editorials and Association Notes

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Experimental Results in Chemotherapy of Tuberculosis

Many investigators have shown that Sulphanilamide, Sulphapyridine and Sulphathiazol have no effect on the course of tuberculosis in guinea pigs.

At the Baltimore meeting of the American Chemical Society in April, 1939, Dr. M. L. Crossley, of the Calco Chemical Company, reported that guinea pigs given tubercle bacilli and then N¹ Dodecanoylsulphanilamide developed only mild local infections whereas the controls all died. The idea behind this therapy was that sulphanilamide combined with a fat might have a better chance to penetrate the fatty envelope of the tubercle bacillus. Follow-up reports on the investigation are lacking.

In the Proceedings of the Mayo Clinic October 30th, 1940, p. 695, Feldman, Hinshaw and Moses report the striking results of Promin (Sodium salt of P.P¹ Diamino—Diphenyl—Sulphone—N.N¹—Dextrose—Sulphonate) on guinea pig tuberculosis. The 30 treated pigs were each given about 300 mg. of the drug per day in their food. A few days later they and 20 controls were subcutaneously infected with tubercle bacilli. In 84 days all the controls were dead and 24 of the 30 treated pigs were still alive. In 164 days the 13 survivors of the treated group were killed. At autopsy all of the controls showed tuberculosis of the spleen,

but 62% of the treated pigs showed spleens histologically free of tuberculosis. Some of the deaths in both series were due to gastro intestinal lesions from an inadequate diet. No toxic symptoms due to Promin were noted.

The administration of the drug before the tubercle bacilli were injected makes this experiment quite different from the ordinary methods of therapeutics, but, considering the susceptibility of the guinea pig to the infection, results such as these are encouraging.

It need hardly be emphasized that this is an artificial laboratory experiment, as yet uncorroborated. However, it suggests to the imagination the possibility of a successful chemotherapeutic attack on human tuberculosis. To medicate the Biblical phrase, we could beat our sanatoria into asylums, and our chest physicians into alienists.

ABSTRACT

Soluseptasine (M & B 137) in Meningococcal Meningitis

(British Medical Journal 1940, vol. ii, p. 439, Oct. 5)

124 Aldershot cases are reported by Lieut.-Col. R. W. Cushing, with a mortality rate of 3.2%. Col. Cushing attributes this remarkable good result to the use of Soluseptasine, a sulphanilamide with an additional benzyl group, which very greatly reduces its toxicity. 10 cc. of 10% soluseptasine intravenously or intramuscularly, about every 6 hours, has revived even pulseless moribund patients. No toxic symptoms were encountered. Once the diagnosis has been made, no further lumbar punctures are done, unless signs of increased intracranial pressure occur. —F.G.A.

Recruit Examination Errors

Aside from the widely-publicized tendency of doctors to omit the "Notice of Call Serial Number" from the physical examination forms of recruits, the Department of National War Services views with regret the bad handwriting of some physicians, and the inaccurate categorizing. It is suggested that examiners study more closely "Classification by Categories" in the booklet "Physical Standards and Instructions for the Medical Examination of Recruits."

Free Booklet on Treatment of Gas Casualties

A booklet issued by the British Air Raid Precautions Department on the medical treatment of gas casualties will be sent free to any doctor on application to the manufacturers of Dettol. Write direct to Reckitt & Coleman (Canada) Limited, 1002 Amherst Street, Montreal, Que.

1940 Income Tax Regulations

A letter issued from the Commissioner of Income Tax in September, 1940, states that, beginning January 1st, 1941, the rate allowed doctors for the operation of their cars for business purposes shall be reduced to 4½ cents per mile, also that for 1939 and subsequent years professional men under salary will not be allowed deductions in respect to the cost of operating motor cars or depreciation thereon.

Extracts from a Eulogy on the passing of Wor. Bro. Dr. A. N. MacLeod, by a brother practitioner (Dr. J. N. Hutchison) at Northern Light Lodge.

"Once more the clock of time has struck the hour and the earthly school of life is out forever for another of our beloved brethren. It is my sad, but pleasurable honour to be permitted to refer to the recent passing of Dr. A. N. MacLeod, a member held in high esteem in this Lodge.

Just forty-nine years ago it was my pleasure to be first introduced to 'Sandy' MacLeod at the medical college in this City. Since these days of the long ago, I have known him intimately.

Dr. MacLeod was a quiet man, a courtly gentleman, a philosopher and a man whose character was built of nuggets of the pure gold of Honesty, High Thinking, Geniality and Friendship and a reverence for the great things of Life—a man who feared God and who walked humbly before his Maker.

For over forty years he lived in the trenches of medical practice; in constant fight against the last great enemy—Death—and was happy in seeing the smile of health coming back to the pallid cheek, strength to the tired limbs and brightness to the dimming eye.

I know how his soul was gladdened by these victories.

Dr. MacLeod was a real 'Dr. MacClure' and his life was rich in the love of his friends, of whom I had the honour to be one.

Yes, we have lost another kindly soul from our ranks.

'Home is the hunter, home from the hill,
And the sailor home from the sea.'

He has laid aside his armour and, weary with the long struggle, he has passed on to the Land of Understanding, where his tired feet will no more be weary, and where a new life of Joy will begin.

We join with his dear ones in paying tribute to his honoured name, and assure them of our deepest love and sympathy in this hour of their bereavement.

And, as we thus join in loving remembrance, may a new quickening inspire each of us to emulate the fine and noble life of our departed friend."

Winnipeg,
October 17th, 1940.

MEDICAL PRACTICE AVAILABLE

The Rural Municipality of Silver Creek, Man., has a vacancy for a Municipal Doctor. Salary of \$3,500 to \$4,000. See advertisement on page 232 for further particulars.

OBITUARY

DR. FRANK WALTER SHAW

Dr. Frank Walter Shaw died at his home in Gimli, Manitoba, on October 26th, after a long illness. Born at Carberry, Manitoba, in 1888, he taught school in Alberta, Saskatchewan and Manitoba, and graduated first in Pharmacy and then in Medicine (1920) from the University of Manitoba. After one year's practice at Elphinstone, Man., and Delburne, Alta., he moved to Gimli in 1923 and practised there until his death. He took an active interest in community affairs and was a member of the Gimli Curling Club. He is survived by his widow, a graduate from the Winnipeg General Hospital School of Nurses, a son and a daughter.

Brandon and District Medical Association Meeting November 27th, 1940

The above Association held a meeting at the Brandon Mental Hospital (Receiving Unit), Wednesday afternoon at 2.45 o'clock, November 27th, 1940.

Programme

Chairman—Dr. D. L. Johnson, President of the Association.

1. Clinico-Pathological Conference.
Dr. J. D. Adamson, Professor of Medicine, University of Manitoba.
2. A Review of Psychiatric Out-Patient Examinations.
Dr. G. A. Little, Mental Hospital Staff.
3. Disease Prevention in Infancy and Early Childhood.
Dr. C. R. Donovan, Winnipeg.
4. Spontaneous Cardiac Rupture.
Dr. I. J. Simburg, Mental Hospital Staff.

Mrs. T. A. Pincock and Mrs. D. L. Johnson entertained the ladies at Mrs. Pincock's home for tea. Dinner was served at 6.30 p.m. in the Nurses' Residence.

The School-Child's Breakfast

Many a child is scolded for dullness when he should be treated for undernourishment. In hundreds of homes a "continental" breakfast of a roll and coffee is the rule. If, day after day, a child breaks the night's fast of twelve hours on this scant fare, small wonder that he is listless, nervous, or stupid at school. A happy solution to the problem is Pabulum (Mead's Cereal cooked and dried). Six times richer than fluid milk in calcium, ten times higher than spinach in iron, containing vitamins B₁ and G, Pabulum furnishes protective factors especially needed by the school-child. The ease with which Pabulum can be prepared enlists the mother's co-operation in serving a nutritious breakfast. This palatable cereal requires no further cooking and can be prepared simply by adding milk or water of any desired temperature. Mead Johnson & Company, Evansville, Indiana, U.S.A. —Adv.



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 Vitamin C
 400 international units of
 Vitamin D
 20 units Vitamin K
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 and Vitamin E, combined
 with salts of the following
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 cium and phosphorus.

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The effect against other pathogenic organisms, including those commonly found in urinary tract disease, is likewise very impressive. However, the general use of Sulfathiazole in such infections should await additional published reports of clinical trials now being made.

*Spink, W. W., and Hansen, A. E.: Sulfathiazole, Clinical Evaluation. *J.A.M.A.*, 115: 840, Sept. 7, 1940.

Write for literature which discusses the indications, dosage and possible side effects of Sulfathiazole.

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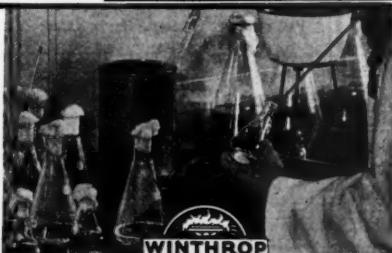
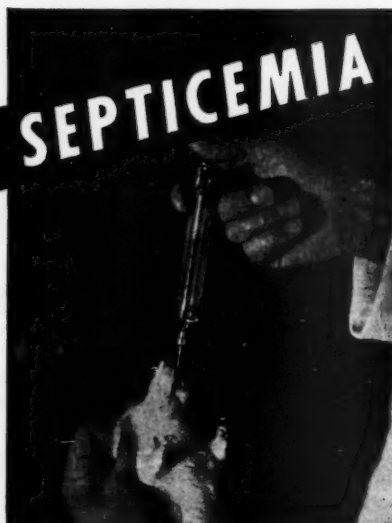
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Department of Health and Public Welfare

SWINE ERYSIPELAS AND ERYSIPELOID IN MAN

Swine erysipelas has been known for long periods in many parts of the world. It was first definitely demonstrated in the United States in 1920¹ and since 1930 has appeared in practically all states.² It was first proved to exist in Western Canada five or six years ago, and is known to have been prevalent in Manitoba during the past few months.³ For this reason a few notes on the disease in the animal and in man is of interest.

The Infection in Swine

Swine erysipelas is an infectious disease caused by an organism called *erysipelothrix rhusiopathiae*. The organism has been found in a considerable assortment of animal species, either as a harmless parasite or as a cause of disease, and its dissemination is extraordinary. It is capable of retaining its viability and virulence for months. A temperature of 70° C. takes several minutes to destroy it.⁴ Pigs between three months and one year old are especially susceptible, pigeons and white mice are highly susceptible to artificial infection, and rabbits and guinea pigs considerably less. Field mice are immune. Cattle and sheep may also become infected.

Forms.

(a) Hyper-acute form which kills pigs so quickly that there is almost no time for lesions to develop.

(b) Acute.—There is reddish purple discoloration of the skin (led to the term "diamond skin" disease) these spots are highly variable as to size, shape and location. The cutaneous manifestations constitute most of the symptomatology in some cases, in others there is an acute generalized infection when the animal refuses feed, breathes heavily, vomits and may appear lame. The post-mortem may show redness of the superficial lymph glands, usually the spleen is enlarged, softened and contains darkened hemorrhagic areas. The kidney is dark red but never mottled. The lungs have a peculiar appearance, the interlobar tissue being definitely red. There is commonly a diffuse enteritis which shows on the outside of the intestines as a definite redness and sometimes the stomach is startlingly red.

(c) Chronic.—This form of the disease shows itself mainly as arthritis, the affected pigs showing swollen knuckles or hocks, they squeal when made to move and fail to gain weight. It may be mistaken for rickets. Post-mortem examination reveals typical changes within the infected joints. Vegetations on the heart valves are apparently common.

Treatment.

Treatment is by the liberal use of antiserum.

Human Infection

Development of the disease in man from infection through the gastro intestinal tract appears very rare. Only one reference to such a possibility was found. As a cutaneous infection it is relatively common among certain workers and is known as erysipeloid. It may be expressed as acute septicaemia with a fatal outcome or as a generalized cutaneous infection with arthritic and constitutional symptoms.

Joseph Klauder in a review of one hundred cases in the Journal of the American Medical Association⁵ states that the localized cutaneous form of the disease occurs at the site of epidermal defect, usually the hands, and it is of variable severity with or without localized arthritic or constitutional symptoms.

Symptoms.

The first symptom is pain at the site of inoculation and is followed by swelling and erythema. The most distinctive feature of the disease, of considerable diagnostic import, is the purplish red color of the erythema. The erythema slowly progresses, producing another distinctive feature, a sharply defined, slightly elevated zone which extends peripherally as the central portion fades away. The involved area is swollen and tense. Another characteristic of the disease is its migratory nature; new purplish red patches appear at remote areas. The disease may completely disappear at the areas first involved at the time other areas are affected, it involutes without desquamation.

The appearance is not that of pyogenic infection with which the condition is frequently confused. The color of the erythema is different. There is no pitting on pressure and suppuration never occurs. Pain is the most conspicuous subjective symptom, throbbing and burning in character, often preventing sleep.

Adenitis, with or without lymphangitis, occurred in twenty-eight of the cases. Six patients had temperatures from 100 to 102 with constitutional symptoms.

Incubation Period.

Usually from one to three days.

Source of Infection.

Fifty-eight of these cases were among workers in an abattoir and included those working in almost all divisions of the plant. Sixteen were from the handling of fish. (The most virulent types of infection appear to come from this channel). Six veterinary students had been dissecting a horse. Seven cases injured while handling fertilizer, tallow, etc. Three butchers, two bakers and eight other cases, each under a different circumstance.

Treatment.

Rest and heat are important. Heat and dry dressings and erythema doses of Ultra Violet Rays from water-cooled quartz lamp have been tried. Immune serum was used in the severe cases. Some cases appear to run a self-limited course. Duration of majority of cases is about three weeks.

The Canadian Journal of Comparative Medicine, October, 1940, reports under the title "Swine Erysipelas in Man" a case occurring in a veterinarian, abstracted as follows:

"August of this year Dr. M. consulted the Bacteriology Department at the Ontario Veterinary College regarding what appeared to be an infection in his right hand. He had autopsied a pig. At the time he performed the autopsy there was a small cut on the index finger of his right hand. Approximately twenty-four hours later the finger began to swell, the swelling being accompanied by considerable pain. The next day he consulted his physician who diagnosed infection and prescribed local treatment as well as the administration of sulphanilamide. In spite of this however, the swelling, and particularly the pain, continued to increase.

"At the time he presented himself to us, swelling was practically confined to the finger. There was no break in the skin but where the cut had apparently been, and had healed, there was a dark red area surrounded by a bright red margin. There was no swelling or pain in the neighboring glands. There was, however, a great deal of pain in the affected finger and hand so that Dr. M. could hardly bear to have it touched.

"We contented ourselves with drawing five c.c. of blood from medial vein. A portion of this was used for a rapid agglutination test using stained antigen obtained from Dr. Schvening, Chief of the United States Bureau of Animal Husbandry. The test was rapidly and very strongly positive. In order to be sure that normal agglutinins did not occur to any degree we tested blood from several other individuals by the same method but obtained no reactions, not even slight ones. Dr. M. attempted to obtain antiserum but as none for human use was available in Canada it was necessary to send to Kansas City for it. By that time (7 days after infection) the swelling had extended to the first three fingers of the hand and both the back and major part of the palm of the hand were swollen. Serum was administered in 10 c.c. doses intramuscularly for four days. This checked the progress of the inflammation and relieved the pain. The swelling, however, did not entirely disappear for some time."

—C.R.D.

References

1. Journal American Medical Association, April 11th, 1931, page 1205.
2. Journal American Medical Association October 8th, 1938, page 1345.
3. Proceedings—Veterinary Association, Manitoba, February 9th, 1940.
4. Veterinary Pathology and Bacteriology—S. H. Gaiger—80 dairies.
5. Journal American Medical Association October 8th, 1938, page 1345.

COMMUNICABLE DISEASES REPORTED

Urban and Rural - September 10th - October 7th

Measles: Total 147—Dauphin Town 83, Cypress North 15, Brandon 10, Dauphin Rural 9, Wawanesa 7, Tuxedo 4, Winnipeg 3, Hanover 2, Whitehead 1, Gilbert Plains Rural 1, St. James 1, St. Vital 1 (Late Reported: Dauphin Town 6, Brandon 2, Gimli Village 1, Boulton 1).

Whooping Cough: Total 124—Winnipeg 43, Kildonan West 10, St. Boniface 6, Siglunes 5, Gretna 3, Albert 2, La Broquerie 2, Lansdowne 2, Montcalm 2, St. James 2, Saskatchewan 2, Tache 2, Woodlands 1, Arthur 1, Binscarth 1, Brokenhead 1, Dauphin Town 1, Hanover 1, Morris Town 1 (Late Reported: Brandon 8, Unorganized 8, Albert 4, Edward 3, Portage Rural 3, Lansdowne 3, Eriksdale 2, Siglunes 1, Brenda 1, Flin Flon 1, Harrison 1, La Broquerie 1).

Tuberculosis: Total 103—Unorganized 20, Winnipeg 11, Brandon 9, St. James 3, Bifrost 3, Armstrong 2, Cartier 2, Dauphin Town 2, Dauphin Rural 2, Ellice 2, Neepawa 2, North Norfolk 2, Rockwood 2, St. Clements 2, Selkirk 2, Archie 1, Birtle Rural 1, Brokenhead 1, Clanwilliam 1, Cypress South 1, Daly 1, Flin Flon 1, Fort Garry 1, Gilbert Plains Town 1, Gimli Village 1, Glenwood 1, Grandview Town 1, Grey 1, Hamiota Rural 1, Hamiota Village 1, Harrison 1, Kildonan East 1, Lac du Bonnet 1, Lakeview 1, Lorne 1, Morton 1, Portage City 1, Portage Rural 1, Rhineland 1, Roland 1, Russell Rural 1, St. Andrews 1, St. Boniface 1, St. Laurent 1, Shoal Lake Town 1, Silver Creek 1, Swan River Town 1, The Pas 1, Victoria 1, Whitehead 1, Woodlands 1, Woodworth 1.

Chickenpox: Total 77—Winnipeg 27, Flin Flon 13, Argyle 9, Rockwood 2, Portage Rural 1, St. James 1, St. Francois Xavier 1, Unorganized 1 (Late Reported: Unorganized 22).

Scarlet Fever: Total 53—Winnipeg 20, Dauphin Town 9, St. Vital 3, Bifrost 3, Armstrong 2, Portage City 2, St. Boniface 2, Unorganized 1, Brandon 1, Dauphin Rural 1, Lansdowne 1, Ritchot 1, Russell Rural 1 (Late Reported: Dauphin Rural 4, Gilbert Plains Rural 1, Strathclair 1).

Mumps: Total 39—Winnipeg 21, St. Boniface 16 (Late Reported: St. Boniface 2).

Diphtheria: Total 17—Winnipeg 13, St. Clements 2, St. James 1, Strathclair 1.

Typhoid Fever: Total 10—Stanley 5, Hanover 1, St. Francois Xavier 1, The Pas 1, Unorganized Territory 1 (Late Reported: Transcona 1).

Pneumonia Lobar: Total 6—Hamiota Rural 1, McCreary 1, Ste. Rose Rural 1, Unorganized 1 (Late Reported: North Kildonan 1, La Broquerie 1).

Erysipelas: Total 3—Ste. Rose Village 1, St. Vital 1, Winnipeg 1.

Anterior Poliomyelitis: Total 2—Hamiota Village 1, Minto 1.

Meningococcal Meningitis: Total 2—St. James 1, Tuxedo 1.

Influenza: Total 2—Hamiota Rural 2.

Encephalitis: Total 1—Napinka 1.

Trachoma: Total 1—(Late Reported: Hanover 1).

German Measles: Total 1—Brandon 1.

Treaty Indians: Total 45—Tuberculosis 35, Diphtheria 3, Influenza 3, Measles 2, Whooping Cough 2.

Veneral Disease: Total 189—Gonorrhoea 139, Syphilis 50.

DEATHS FROM COMMUNICABLE DISEASES

RURAL—Cancer 23, Tuberculosis 8, Pneumonia Lobar 7, Pneumonia (other forms) 9, Influenza 3, Syphilis 3, Erysipelas 1, Lethargic Encephalitis 1, Poliomyelitis 1, Scarlet Fever 1, Whooping Cough 1, other deaths under one year 22, other deaths over one year 160, Stillbirths 18. Total 258.

URBAN—Cancer 46, Pneumonia Lobar 3, Pneumonia (other forms) 4, Tuberculosis 3, Lethargic Encephalitis 1, Poliomyelitis 1, Syphilis 1, Typhoid Fever 1, other deaths under one year 13, other deaths over one year 153, Stillbirths 13. Total 239.

INDIAN—Tuberculosis 19, Influenza 6, Pneumonia 6, other deaths under one year 7, other deaths over one year 6, Stillbirths 2. Total 46.

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